

Notice of Allowability

Application N .

10/813,549

Examiner

William W. Moore

Applicant(s)

LIAO, YOU-DI

Art Unit

1656

-- **Th MAILING DATE of this communication appears on th cover sheet with th correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 21 March 2006 and the interview conducted 4 June 2006.
2. ☒ The allowed claim(s) is/are 9-16 and 18-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements not d b low. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachm nt(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Cancel claim 17.

Amend claims 9, 14, 16, and 18-20 thus:

9. (Amended) An isolated cell comprising a methionine aminopeptidase that comprises an engineered version of SEQ ID NO:1, wherein residue 206 or 233 of SEQ ID NO:1 is substituted with an amino acid selected from the group consisting of Gly, Thr, Asp, Val and Asn, and wherein the methionine aminopeptidase is at least ~~about~~ 90% identical to SEQ ID NO:1 outside of residues 168, 206 and 233.
14. (Amended) An isolated nucleic acid molecule comprising a sequence that encodes a methionine aminopeptidase that comprises an engineered version of SEQ ID NO:1, wherein residue 206 or 233 of SEQ ID NO:1 is substituted with an amino acid selected from the group consisting of Gly, Thr, Asp, Val and Asn, and wherein the methionine aminopeptidase is at least ~~about~~ 90% identical to SEQ ID NO:1 outside of residues 168, 206 and 233.
16. (Amended) An isolated A cell comprising the nucleic acid molecule of claim 14.
18. (Amended) A method of removing the N-terminal methionine from a target protein comprising
 - (i) introducing the nucleic acid molecule of claim 14 into a cell, wherein the cell comprises a nucleic acid molecule ~~DNA~~ that encodes the target protein, and
 - (ii) permitting the expression of the nucleic acid molecule of claim 14,whereby the target protein is cleaved.

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19. (Amended) A method of removing the N-terminal methionine from a target protein, comprising

(i) introducing into a cell the nucleic acid molecule of claim 14 and also introducing into the cell a nucleic acid molecule ~~DNA~~ that encodes the target protein, and

(ii) permitting the expression of the nucleic acid molecule of claim 14 and the nucleic acid molecule that encodes the target protein,

whereby the target protein is cleaved.

20. (Amended) ~~The~~ A method of removing the N-terminal methionine from a target protein ~~of claim 19, comprising introducing into a cell the nucleic acid molecule of claim 14,~~ wherein the nucleic acid molecule of claim 14 further comprises a second nucleic acid sequence that ~~also~~ encodes the target protein.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Ping F. Hwung on 4 June 2006.

The following is an examiner's statement of reasons for allowance:

The examiner's amendment above deletes the withdrawn, unamended, claim 17, rejoins the previously withdrawn, currently amended claims 18-23, and restates claim 16 to avoid an issue of non-statutory subject matter arising under 35 U.S.C. § 101 by requiring that the cell be isolated, hence not part of a transgenic person bearing an altered nucleic acid molecule of claim 14. Claims 18 and 19 are restated to require that a nucleic acid molecule of claim 14 be expressed so that cleavage can be the result of the activity of the encoded aminopeptidase. Claim 20 is made a dependent claim, depending from claim 19, to clarify that separate coding regions are present in a nucleic acid molecule of claim 14, permitting the allowance of claims 9-16 and 18-36 herewith.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

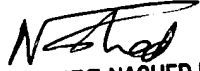
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Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William W. Moore whose telephone number is 571.272.0933 and whose FAX number is 571.273.0933. The examiner can normally be reached Monday through Friday between 9:00AM and 5:30PM EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisory Primary Examiner, Dr. Kathleen Kerr, can be reached at 571.272.0931. The official FAX number for all communications for the organization where this application or proceeding is assigned is 571.273.8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571.272.1600.

William W. Moore
4 June 2006


NASHAAT T. NASHED PHD.
PRIMARY EXAMINER